



# **USA Swimming**

## **Use of Tech Suits by Age Group Swimmers**

**DRAFT REPORT**  
**January 23, 2018**

**Submitted to the Age Group Development Committee**  
**by the Isaac Sports Group, LLC**



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## **INTRODUCTION**

In 2016 and 2017 several LSCs have discussed, developed, and rolled out age and event based restrictions on the use of High Performance Technical Swim Suits (simply referred to as “tech suits” in this report) by age groups swimmers twelve years and under. Many more LSCs are reviewing the issue and the use of tech suits by age groupers is a hot topic of discussion among coaches throughout the country. The variances in the wording, approach, definitions, age and meet level, and enforcement methodology among LSCs with restrictions are significant. It is clear that USA Swimming needs to address this issue on a national level, eliminating the variances and inconsistency and establishing a national policy, rules or guidelines.

In August, 2017 USA Swimming retained ISG President Stu Isaac to review the issue, analyze the wide range of factors affecting the issue, and develop scenarios and options for USA Swimming to address the issue.

Following are the main issues initially driving the development and implementation of restrictions:

- The high cost of tech suits
  - Creating an uneven playing field based on ability to afford the high cost of tech suits
  - Raising the overall cost of participation in the sport and contributing to driving people out of the sport
- Impact on swimmer development
  - Drawing focus away from key skill development, practice and coaching and puts the emphasis on the suit as a quick path to improvement and success
- Impact on clubs and coaches with different approaches to the use of suits in their programs and long term swimmer development
- Protect young swimmers from the overzealous parent pushing tech suits as one aspect of overall parental pressure to succeed
  - NOTE: A couple parents and coaches summed this up as “protect the parents from themselves.”

These issues are not unique to swimming. The issues surrounding the use of high cost tech suits by age groupers is one more symptom of the overall trend of parents doing whatever they can to provide the resources for their children to achieve at a higher performance level at younger and younger ages. This “arms race” frenzy is becoming more and more imbedded in our culture, including private coaching, elite teams and camps for younger ages, increased travel requirements, and overall costs of sport participation. The long term impact of this arms race is debatable in its long term impact on the healthy and positive long term development of young athletes. USA Swimming has a long history as one of the best age group development programs of any sport, nationally and worldwide, culminating in the unquestionable success of USA Swimmers at all levels of competition and in the positive and healthy impact of sport on the development of young people into adulthood. As a leader in youth sports, USA Swimming is committed to tackling these issues in a reasonable, positive and cost effective development model that still provides the excellent coaching, strong clubs, and access to resources to grow the participant base and achieve competitive excellence.

While this study does not presume to be able to provide solutions to this overall cultural trend, it does hope to provide insight and options to address the issue for the Age Group Development Committee and the leadership of USA Swimming to continue to be the leader in youth sport development nationally and worldwide.

To achieve these goals, this report focuses on the following components of the issue:

- Review of tech suit technology and definitions
- Cost of tech suits, analysis of the market, and financial considerations
- Role and impact of use of tech suits in swimmer development
- Education and communication
- Role of Clubs and Coaches
- Input from Meets
  - Coaches, Parents, Swimmers, Officials
  - Observations
  - NOTE: Since I was not able to attend age group meets around the country I often relied upon other individuals with direction from me to observe meets and report on suit use
- Review of current LSC rules, restrictions, and enforcement
- Input, impact and role of suit manufacturers
- Legal considerations
- Scenarios and options to consider in addressing the issue
- Unintended consequences and ramifications

The scenarios presented are intended as options with pros and cons included to aid discussion and analysis for consideration and action by the Age Group Development Committee. These scenarios are not intended as recommendations by ISG.

This Report is called a draft, allowing for any final updates in the next two days to address any remaining questions, clarifications, or concerns that may be expressed in the Age Group Development Meetings January 23 and 24, 2018.

## **METHODOLOGY**

The following methodology was used in the research and development of this study.

- Engagement with USA Swimming Leadership, Management, Committees, Athlete Reps, Zone Consultants, Officials
  - Interviews by phone
  - FINA World Championships
  - FINA Junior World Championships
  - USA Jr. Nationals East
  - USA Futures, Ohio
  - ASCA Convention
  - USA Swimming Convention
    - Age Group Development Workshop on Technical Suit Use
    - Age Group Development Committee Meeting
    - Athlete Rep Meeting
- Engagement with USA Swimming Coaches and Teams
  - Late summer meets (ISG engaged after end of summer age group season)
    - Futures in Geneva, OH
    - USA Jr. Nationals East
    - FINA World Juniors
  - ASCA Convention
  - USA Swimming Convention
  - Phone interviews with wide range of age group coaches
  - Fall and winter age group meets
  - Coach organizational interviews
  - Questions and discussion topics for coach interviews included in report as Attachment #1
- Engagement with age group parents and swimmers where appropriate
  - Meets
    - Wide range of meets from Futures, and A+ meets to large ABC meets
  - Interviews
    - Speaking with of high level Jr. National and Futures to understand the process they went through with their swimmers
    - Speaking with parents of grass roots ABC age group swimmers ages 9-13 to understand their current process of tech suit selection and use.
    - Often had chance to speak with swimmer and parent together
  - Questions and discussion topics for parent interviews included in report as Attachment #2
- Review and Engage LSC's with current Tech Suit rules or pending rules in discussion
  - Review rules or proposed rules
  - Interviews by phone
  - Meetings at USA Swimming Convention
- Engagement with suit manufacturers and team dealers
  - Phone Interviews
  - Meetings at meets
    - Jr. Nationals, Worlds, Junior Worlds, Futures, Age Group in season meets

- Meetings at conventions
  - ASCA & USAS
  - List of manufacture and team dealer questions and discussion points included as Attachment #3 and #4
- Explore any relevant equipment limitations in other sports and NGBs
- Discussion of hypothetical scenarios and ramifications with sport and coaching leaders, manufacturers and constituents

## **SUIT TECHNOLOGY**

When using the term tech suits in meetings, discussions, interviews, and daily use, the meaning of the term is fairly well understood. It is when you get into the details of the features and components and ultimately the definition of a tech suit for purposes of specific restrictions and enforcement some variances and even confusion occur. The differentiation of these features creates issues based on their varying abilities to be easily recognized by just looking at the suit from any distance, even by trained officials. This is especially true for boys' jammers.

The three main differentiating performance and cost features and components of tech suits are the following. Each of these improves the performance of the suits and increases the cost of the suits.

- Woven versus knit fabric
- Bonded versus sewn seams
- Use of water repellent or anti-absorption treatments or coatings to the fabric or fibers

The most common definition used by LSCs in their restrictions is a suit using either woven fabric or bonded seams.

There are other less impactful components that are found on many versions of the tech suits but these are not as critical to performance and cost and have not been considered by LSCs or clubs in their development of their tech suit definitions. These include:

- Silicone grippers at the bottom of the leg
- Closed back silhouettes on female kneeskins
- Specific manufacturer features which can include:
  - Specific comfort or fit features
  - Core support
  - Stability support

### **Woven versus Knit fabrics**

Woven fabrics have been used in performance suits since the “paper suits” introduced in the mid 1970s. These have evolved and today’s microfiber woven fabrics are used in the vast majority of tech suits now on the market since the elimination of impermeable fabrics and non fabric suit materials by FINA following the 2009 World Aquatic Championships. Woven fabric provides a tighter stretch, better configuration to the body, more support and compression, and limited absorption based on the microfiber weave. When properly cared for, woven fabric can also maintain its stretch characteristics and stretch memory longer than traditional spandex stretch fabrics. Woven fabric is one of the key elements included in the definition of tech suits currently used by LSCs. One challenge with woven fabrics as one tech suit differentiator is that a couple manufacturers are starting to use lower stitch count woven fabrics as part of non-tech suits in their regular suit line. While this is a rare exception now, the use of woven fabrics in regular suits may increase. Woven fabrics used in suits were initially able to be identified by the naked eye because of their matte finish and different look from knit lycra, but with more and more printed woven fabric used in tech suits it is increasingly difficult to differentiate woven fabric suits except up very close viewing or touching.

### **Bonded versus Sewn Seams**

The advent of bonded seams has become one of the key distinguishing performance elements of tech suits. Bonded seams have several performance advantages, including:

- Elimination of the ridges and protrusions on the surface of the suits created by sewn seams and threads
- Stronger seams than traditional sewn seams
- Bonding tape on inside of the seams can be engineered to facilitate compression, stability, and movement assistance
- Bonding tapes can insure seams have same stretch characteristics as overall fabric helping with better performance fit

Bonded seams tend to be the largest component of the increased cost of tech suits.

In the past bonded seams were easy to visually differentiate from sewn seams, particularly with the use of contract stitching on many sewn kneeskins and jammers. Now with the addition of printed high tech suits it is more difficult to easily differentiate the two types of seams without close inspection.

#### Water Repellant and Anti-absorption Treatments

Some types of water repellant or anti-absorption treatments have been used on swim suits for many years. As these treatments improve within FINA guidelines there are now treatments that treat the fabric and the actual fibers before they are woven into the fabric. Woven fabrics with their high density stitch count and tight weaves work well with these water repellent treatments. These treatments help limit absorption of water by the suit during races and can reduce surface drag depending on the process. These treatments are very difficult to differentiate visually and different types of water repellent treatments are often used by manufacturers in regular line suits, particularly suits developed for training and durability.

Currently no LSCs are using water repellency in their definition of tech suits used in restrictions.

#### Hybrid Tech Suits

Virtually every manufacturer uses all of these elements in their high end tech suits. See the summary of tech suits features in Attachment #5. For many years the largest manufactures have also developed a range of tech suits at lower costs incorporating some combination of these features and targeting different performance levels. In response to market demand and most recently, the discussion of restricting use of tech suits for the younger age groups, most manufactures now have a full progression of tech suits that include one of the key elements, some secondary elements, or in some cases, none of these elements but just the look of a tech suit. There are now suits offered by major manufactures that have the look, silhouette and design of a kneeskin tech suit without using woven fabric or bonded seams. To avoid confusion, these are still usually submitted to FINA for approval and often carry the FINA approval logo.

#### Size Ranges

Sizing is a very misunderstood variable in tech suits, yet proper fit and sizing is a critical component to performance. There is no standard sizing and the sizing varies from manufacturer to manufacturer (for example, a female Arena size 24 tech suit fits like a size 20 Speedo Tech suit and a 22 TYR suit.) Many of the manufacturers do not even offer smaller sizes in their highest price tech suit that would fit most 10 and under swimmers. Blue70 and Speedo were the first to offer an expanded smaller size range for younger swimmers, although the size patterns



were still based on older elite swimmer bodies. Now many manufactures are offering smaller sizes in their less expensive entry level and mid level tech suits to meet demand from the younger age swimmers.

### Effectiveness of Tech Suits for Young Age Group Swimmers

The research, development, and testing of tech suits by manufacturers and their development teams have focused on elite swimmers for obvious reasons. Virtually all testing on performance enhancement and brand comparisons have used elite or world class swimmers. All fit measurements, sizing, and engineering has been based on the bodies of elite swimmers. No actual testing of any performance enhancing effect of tech suits on swimmers twelve years and younger has been conducted or analyzed. The general consensus and logical conclusions about the impact of the suits for younger swimmers is derived from the application of the advantages for older swimmers and extrapolated to younger and smaller swimmers. These conclusions about the effectiveness or diminishing effectiveness for young swimmers include the following:

- **Compression:** The performance impact of compression on young swimmers is significantly reduced since the majority of young swimmers are not heavily muscled and often are relatively skinny and light weight.
- **Stability and Efficiency:** The performance impact on young swimmers is likely to be reduced since the tech suit can help maintain stability and stroke efficiency with a consistent and already well developed stroke. The poorer the stroke technique of a young swimmer, the less the impact of the suit.
- **Drag reduction:** The drag created by the body in swimming increases by the square of the speed. Younger swimmers at much slower speeds generate less speed related drag which limits the impact the actual suit can have. Younger swimmers may have smaller bodies, but they also often have poorer body position and streamlining (unless they are getting the coaching and doing the work they need). This results in a larger component of total drag being created by frontal resistance lessening the significance of surface drag and therefore the impact of the tech suit.
- **Fit:** The performance enhancement of the tech suits is very dependent on the proper fit of the suits. This is a major reason that many manufacturers offer a wide range of suit sizing including odd sizes and longs. Since the fit of these suits was developed based on elite swimmers, the suits are not designed for the young swimmer body types which create poor fitting suits, even when sizing is correct. The poor fit usually found with young swimmers using tech suits, especially the higher end tech suits, significantly reduces the effectiveness of the tech suit.
- **Sizing:** The size ranges initially developed by the manufacturers were designed to support the range of sizes needed for swimmers at championship levels, taking into account that there were quite a few young and smaller swimmers at the top levels of competition. Some manufacturers now provide an extended smaller size range in select styles that will better fit youth, but these smaller sizes are still just sized down models of the original patterns. As with fit, the sizing models result in poorer fits, reducing the effectiveness of the tech suit.
  - NOTE: One manufacturer has developed specific youth fit sizes for a new entry level sewn tech suit to be available in May, 2018
- **Psychological impact of tech suits:** The psychological impact of the tech suit is probably the single most significant positive impact of the suit on young age group swimmers. With the reduction in actual hydrodynamic, physiological, and bio-mechanical impact on the bodies of young swimmers, the psychological impact becomes the main operative

impact. This is further enhanced since most of these young 12 and under swimmers do not have the added taper advantages of shaving for a big meet.

NOTE: The impact of the tech suits here is discussed by age. It is important to remember that the impact of tech suits is likely to increase as the swimmer reaches puberty. Independent of tech suits, the age timeline of growth and maturation is a key factor in age group swimmer performance, especially with female swimmers in the 11-12 age groups we are considering.

### Suit Lifespan

It is clear that there is much misinformation in the market about the lifespan of tech suits. The manufacturers are all hesitant to provide specific information concerning the lifespan of tech suits. They stress care instructions that will help maintain the life and effectiveness of the suit. The hesitancy to provide lifespan info comes from the knowledge that many of the suits are not cared for properly which result in shorter life expectancy. The manufacturers do not want to raise expectations or return policies that are out of control of the manufacturer. Actual research and experience of suit use indicate a lifespan of tech suit effectiveness that exceeds the perception of most consumers. We see this more now with the increase in use of hand-me-down and used suits. This issue is also further discussed in the Education and Communication Section of this report and in the financial impact and value proposition of the cost of the suit.

### Suit Pricing

High cost top of the line tech suits that include all the key performance elements range in pricing as follows (these are MSRPs, Manufacturer's Suggested Retail Price) for new suits, not including discounted discontinued suits on sale. See pricing detail in Attachment #5.

Female	\$349 to \$549
Male	\$279 to \$399

The price range of entry level tech suits that include one of the performance features is:

Female	\$100 to \$180
Male	\$ 90 to \$175

See more analysis of suit costing, financial impact, and obtaining suits in the Cost Impact section of this report.

### FINA Approval and Approval Logo

Manufacturers have taken different approaches to the FINA submission and approval process. Some manufacturers only submit suits that include the key performance elements and that they intend to market as high performance suits. Other manufactures submit a wider range of suits that may not meet the above definitions of tech suits but that may look like tech suits, hoping to prevent confusion on the pool deck if questioned. They may also use the "FINA Approved" language in marketing of these suits. Clearly, virtually all regular line team and training suits are within FINA guidelines, but there is no need for the approval process since these are not used in top levels of competition.

One LSC (New Jersey) has used the presence of the FINA approval label as their enforcement vehicle but their definition of a tech suit does not coincide with many of the suits on the FINA approval list. While this is probably the most easily observed and identified differentiator, it includes a small number of suits from several manufacturers that do not include any of the key cost driving performance enhancers and are much lower priced. More discussion of this issue is in this report section on LSC rules and potential Scenarios.

## **FINANCIAL IMPACT OF TECH SUITS**

The main point made in virtually all discussions about the tech suit issues is that “Ten Year olds should not be wearing \$500 tech suits.” While most people realize that this is an oversimplification of the issue and of the cost of tech suits, it does underscore the concerns of many stakeholders in the sport. It is important to understand how 12 and under swimmers and their parents go about purchasing their first tech suits and what prices they are paying. To review this market we interviewed many age group parents as well as team dealers who are the primary source of tech suits sales. Team dealers have a better sense of who is buying the suits and what different ages are looking for than the manufactures, who can only track sales to dealers or through their own websites which does not allow for tracking by ages. We also tried to take into account the secondary tech suit sale market/network, which includes hand me downs, used suits, and suit trading.

### **Purchase Price**

There is no doubt that there are parents of 10 and unders and 11-12 age groupers that have purchased the highest cost tech suits for the swimmers. Speaking with parents, team dealers, manufacturers, and observing swimmers at different levels of age group meets we feel that the tech suits used by age groups 12 and under are mostly the lower cost tech suits. While there may be some regional variances and we certainly have not been able to attend championship age group meets around the country, we find that the young swimmers, especially those purchasing their first tech suit, are usually not purchasing the high end/high cost male or female tech suits. In many cases the swimmers first tech suit may well be a hand me down or a used suit purchased from another swimmer.

Backing up these observations is the growth of sales of lower priced or entry level tech suits. The Speedo Aquablade, a leading tech suit of its era when released in 1996 and now perceived as a performance suit just below the level of the suits now defined as tech suits, increased by 8% in sales over the last year. Other manufacturers are reporting sales increases in the entry and mid-level tech suits. New entry level and mid level tech suits at the lower end of the tech suit price range are being introduced by many of the manufacturers. This trend began prior to the start of LSC age group suit restrictions but the growth of this may now be influenced by the ongoing discussion of the restriction issues. We speculate that the increased discussions of use by age groupers and the growing attention and awareness to the issue in the swimming media is beginning to also have an impact.

Purchase price paid by all swimmers is also impacted by discounts in place in the market. Most manufacturers now have MAP programs (Minimized Advertised Pricing) which limit the discount off of MSRP that a dealer or retailer may advertise or publish. Most of these create a maximum discount of 5% that can be advertised. This does not prevent a team dealer from providing additional discounts per team based on team sales programs. A growing number of USA Swimming Clubs have direct sponsorships with manufacturers. Based on input from manufacturers close to 1,000 of USA Swimming Clubs out of the total of approximately 3,000 USA Swimming Member Clubs have sponsorships, which often provide discounts up to 50% off of tech suits for team members reaching down to sectional and LSC championship levels. These sponsored teams tend to be the larger clubs, so the average percent of athlete members on a sponsored team is quite a bit higher than the actual percent of sponsored teams. Manufacturers

also have sponsorships or tech suit discount programs in place for LSC Zone Team outfitting with quite a few LSCs which can offer up to 40% off on tech suits for Zone Championships. Discounts are also available through team dealers on discontinued tech suits.

Overall, we estimate that the average functional discount that swimmers receive for tech suits is in the 15% to 20% range, bringing the purchase price down.

In interviews with parents of 10 and unders and 11 & 12s at age group meets most identified the cost of the tech suits for females as in the \$125 to \$200 range and from \$80 to \$150 for male suits. This would indicate that the majority of these age group suit purchases are focused on the entry and mid-level tech suits at discounted pricing.

The negative comments we heard concerning price were more often comments about the value proposition relative to the lifespan of the suit. The most negative comments were similar to the following: “I don’t want to pay this much for a suit that you can wear four times.” These comments are addressed in the education section of the report. We also heard about the bad fits (usually incorrect sizing or inappropriate suit) of suits purchased on line which also lowers the value proposition increasing the concern about cost.

#### Range of Suit Options

One of the most daunting aspects of purchasing a tech suit is the incredible range of options available to the consumer, with limited guidance on what features are best for the specific swimmer, age, and level of competition. A survey of options available on just one website indicates the complexity of the choice of tech suit. [SwimOutlet.com](http://SwimOutlet.com) has the following number of tech suit manufactures and styles listed on their website, including discontinued models still available for sale:

##### Women

Number of Brands:	17
Number of Styles:	90
Cost Range:	\$89 to \$549
Significant Brands (alphabetically):	
Arena:	12 Styles
Dolphin:	4 Styles
Finis:	10 Styles
Speedo:	10 Styles
TYR:	12 Styles

##### Men

Number of Brands:	16
Number of Styles:	70
Cost Range:	\$69 to \$399
Significant Brands (alphabetically):	
Arena:	12 Styles
Dolphin:	3 Styles
Finis:	5 Styles
Speedo:	6 Styles
TYR:	13 Styles

When you add the two or three bands that only sell direct, these numbers are even greater and the choices more confusing.

Without education and guidance, which sometimes can just be a certain brand based on a team sponsorship, the purchaser often looks to a factor that consumers often use to decide what choice is best in the absence of education or information: Price! The more choices and confusion in the marketplace, the more likely price will be an overriding factor in a suit decision; either the lowest cost option for those wanting any tech suit or the higher cost option for those thinking the most expensive must be the best. This will depend on the consumer's objectives. Neither of these options is likely to result in the swimmer getting the best suit for their needs. See further discussion of this issue in the Education and Communication Section.

### Secondary Market

A comment heard from many coaches is that the cost of the suit has not prevented even young age group swimmers from getting a tech suit of some level. As the coaches say, "the swimmers and parents find a way to get a tech suit." While this confirms some of the concerns about why swimmers are getting suits that they probably do not or should not use, it does indicate that is not a huge obstacle affecting participation in the sport. Many parents and swimmers report getting their first tech suit as a hand me down from an older sibling, in a purchase of a gently used suit from an older teammate or a trade. Some teams even have a system to pass along suits. There is also availability of used tech suits on eBay and other reselling websites. In recent parent interviews at meets between 20% to 25% of parents reported their child's first tech suit was a used hand me down, a borrowed suit, or a purchased used suit. Some clubs even have a suit exchange on their website. One typical comment from a 15-year old girl at Futures shared her experience as follows:

"My first tech suit was one I borrowed to try out at a meet.

My second tech suit was purchased used on eBay.

My third and first actual new tech suit was purchased when I first made Zones and we used the Zone Team sponsorship discount."

### Overall Cost of Participation in the Sport

Discussions about the cost of the suits also address the cost of the suit as a significant factor in the overall cost of participation in the sport of swimming. Swimming is usually perceived as being in the mid-range of youth sport cost of participation. It is difficult to determine how big a factor a tech suit is in the overall cost of participation. USA Swimming has no research on the average cost of participation at different levels of USA Swimming. In interviews we asked parents and coaches about the cost of participation and their concerns were largely about the cost of club dues, training fees, meet entry fees, and meet travel. Very few comments even mentioned concerns about the impact of tech suits on the overall cost of participation in the sport. Many coaches did mention concerns about the cost of the support but virtually all said that the cost of tech suits were not a major factor in their overall concerns about the cost of participation. There were quite a few additional factors that were mentioned as adding more costs to the sport such as the increase in outside private coaching and lessons augmenting the club programs as well as outside dry-land training, etc. There are definitely elements of the

youth sport “arms race” that are becoming more prevalent in swimming over the last several years.

Cost of participation in USA Swimming is an issue that should be considered as the long term strategic development and future of the sport is discussed and planned. We would recommend that USA Swimming conduct a study of the cost of participation and determine if there is a need to address key components of the cost of the sport or at least better understand the true costs and their impact on the growth of the sport. Steps to address the cost of participation in the sport are already underway such as the establishment of flex membership and the opportunity it presents for clubs to offer less intense entry level training and competitive programs for less committed swimmers or swimmers just beginning in the Sport with USA Swimming. Cost of participation is also addressed in support for individual clubs and overall USA Swimming outreach and diversity programs.

#### Impact on Membership and Retention

Some comments have been made about the costs of tech suits driving swimmers out of the sport at young ages. As part of this study we reviewed USA Swimming membership statistics going back to 2004 through 2016. At the time of this analysis, we did not yet have the final membership demographic report from 2017. In this review we have found no statistically significant analysis or even trends that support the conclusion that the increasing use of tech suits by young swimmers is driving young age groups out of the sport. We focused on membership stats in the last five years, the period where we have seen the significant increase in use of tech suits in the younger age groups. In discussing this issue with coaches, virtually no coaches at any level really believe that they were losing kids because of the cost of tech suits. Most of the examples of swimmers leaving the sport are anecdotal and while the tech suit may be mentioned, it is often not the real underlying cause. While there may be some cases of declining age group retention or membership in some LSCs, we do not see this as a national trend. In this study we actually did see a jump in the number of young boys swimming when the jammer suit became available as team and training suits in the early 2000s.

Here are some relevant national statistics on age group membership and retention. I focused on the ages 10-13 individually to see if there were changes in the number of retrained athletes in each of these ages between 2012 and 2016. We used these years as the most recent full year comparisons of the same year in the Olympic quadrennial cycle. We chose these ages as the ages that would be most impacted if young age groupers were increasingly leaving the sport in the ages where they were first using tech suits. The lower percent increase for 10 & under girls is the only number that stands out and might indicate some issue. When we check new memberships for each age during this same period, the new memberships for 10 year old girls was the only age/gender where the new member numbers actually dropped from 2012 to 2016, which probably indicates that there was some factor other than tech suits affecting the 10 year old female memberships

Retained Swimmers: Age	2012		2016		% Increase	
	Female	Male	Female	Male	Female	Male
10 Yrs Old	11,250	7,497	11,874	8,707	5%	16%
11 Yrs Old	13,669	9,045	15,474	10,886	13%	20%
12 Yrs Old	15,577	10,239	17,954	12,568	15%	23%
13 Yrs Old	14,930	9,914	17,891	12,787	20%	29%
<b>TOTAL 10-13</b>	<b>55,426</b>	<b>36,695</b>	<b>63,194</b>	<b>44,948</b>	<b>14%</b>	<b>23%</b>
<b>ALL AGES</b>	<b>120,590</b>	<b>89,483</b>	<b>138,648</b>	<b>106,493</b>	<b>15%</b>	<b>19%</b>

Retained swimmers are defined as those swimmers of that aged with renewal memberships from the previous year.

#### Conclusions About Suit Cost Factors

Based on all of these factors, we find that very few young swimmers are paying anywhere near the top pricing of \$500+ for female suits or \$350 for male suits.

As our discussions with stakeholders about the financial impact of the suits increased in depth and detail it became apparent that the financial cost of the suit is not as big a factor as often portrayed and is not the main concern of professional coaches and many leaders in the sport when considering retention in the sport.



## **IMPACT OF TECH SUITS ON THE DEVELOPMENT OF YOUNG SWIMMERS**

Early in our research and interview process it became very evident that the most significant concerns about the use of tech suits by age groupers revolve around the potential negative impact on swimmer and parent attitudes and perceptions of the tech suit and their impact on the appropriate steps in swimmer development. This truly seems to be the crux of the issue for most in the sport, including coaches, leaders, and to an important extent, parents. Here are some of the often heard comments concerning this issue:

- The perception that putting on the tech suit will make you faster takes away from the swimmer's and the parent's focus on training and coaching and the importance of skill development
  - The perception of a "short cut" to success results in the parent or swimmer taking other short cuts. One of my favorite coach comments when asked by a parent if they should get their daughter an expensive tech suit was: "Don't buy a new suit; just get your daughter to practice on time!"
- The swimmer does not think they can swim fast without a tech suit.
- When not wearing a tech suit, the swimmer has an excuse to go slow, and often impacts the effort and focus put in by the swimmer, often in even slower performances and effort
- Swimmers are very aware of how many swimmers are wearing tech suits in their meets and races.
- Swimmers don't know how a tech suit helps, just that they want one because everyone else has one.
- Overzealous parents who purchase the highest cost tech suits are often the same parents who put undue pressure on their young children to perform, often to the detriment of their child's enjoyment and development in the sport and even their continued participation in the sport.

It is clear that these attitudes and perceptions do exist and are very legitimate concerns. Many parents interviewed expressed that they did not want their child to think they needed the suit to swim fast but recognized that the potential psychological impact of having one existed, especially as their child notices how "everyone else has one."

Discussion with coaches on these issues generated some very common ground and some very diverse approaches to these issues. The approaches to these issues varied by the quality of club and the experience of the coaches. The coaches of top clubs, based on USA Swimming Club Excellence program combined with the reputation and success of the team in the local markets was a key factor in diminishing the negative impact of these tech suit issues. Experienced professional coaches often were also more successful in mitigating these issues, particularly based on their credibility with club parents and swimmers. Most of these clubs were able to keep development priorities from being compromised by the use of tech suits.

As mentioned by many coaches, the use of tech suits and the commitment and focus on the key elements of swimming success are not mutually exclusive, but often do end up in conflicting messages or use of resources. Most coaches try hard to achieve a proper balance with the focus on training and skill development, but are often a lone voice amidst the clamor of overzealous

parents or the “buzz” in the stands at meets. Many top clubs have their own tech suit and team suit guidelines that include the ages and level of competition where a swimmer can wear a tech suit. In many cases these are guidelines while in others they are team rules. These coaches and teams have used these guidelines combined with practice and training guidelines that separate the issues of tech suit performance from the swimmer commitment to the important steps to improvement and growth. Some examples of club suit guidelines are included as Attachment #6.

Quite a few top coaches approve of the use of tech suits for young age group swimmers, knowing that they have established a culture that keeps the training focus on the proper priorities. These coaches feel that they want their swimmers to believe they can go fastest in the designated championship meets and do not want a swimmer having an “excuse” to go slow before they even get on the starting block. One of the top national coaches who is part of a very successful team of age groupers and senior swimmers approves of the use of tech suits but is very careful to limit the total practice time for ten and unders, resisting the requests of the aggressive parents of young swimmers for more intense training at a young age. Many clubs have been successful with this approach in developing and retaining swimmers at the highest level of the sport.

A large majority of coaches at all levels do not believe that ten and under swimmers should be wearing tech suits but that the issue gets more complicated when talking about 11 & 12 year olds as these swimmers develop at different rates and the better twelve year olds are often participating in senior or open competition or focused on cuts for higher levels of championship meets. Many of these coaches agree with the principles of some restrictions, but feel that the professional club coach is better positioned to make these decisions for the swimmers in conjunction with parents and overall team policy and direction. They actually are comfortable with some level of restrictions but believe that these decisions are best left to the coach and would prefer not to have restrictions imposed. Coaches are split on whether restrictions should be handed down from USA Swimming or are better developed by the individual coach or club to better address the needs of the individual and the swimmer development plan for each club.

Dealing with the appropriate use of the tech suits becomes more problematic when we get to the less experienced coaches and weaker or less coach driven clubs. Quite a few examples of swimmers changing clubs and coaches being pressured by parents to allow tech suits for more competitions were mentioned in our coach and club interviews. There were examples of swimmers changing clubs because one club in an area allowed the use of tech suits in all meets for younger age groups while another club did not, prompting some aggressive parents to move their swimmers from the club that did not allow tech suits to the club that did. This scenario was mentioned by coaches across a wide range of team levels but more often appeared in clubs where the coach did not have experience or credibility to gain the confidence of the parents without some additional outside educational or informational support. In cases like these there is the potential for one club using the tech suit usage as a “recruiting” tool in promoting the quicker success of the clubs age groupers and an artificially faster road to success. The strong coaches combat this by promoting the long term improvement and success of their swimmers but the immediate early success of swimmers is often a magnet to attract that parent focused on immediate success. It is difficult to assess whether there were other variables in play in these swimmers switching teams since this evidence is anecdotal in nature. It is likely there were also other factors in play, but the perception is that the key element in the change was the suit policy and the early competitive success of the young swimmers.

One extreme example was given about a coach who was actually fired by the club board over his restrictions on use of tech suits by younger swimmers in non-championship meets.

Many coaches in support of restrictions viewed restrictions as the protections and best practice mandates that take the pressure off the coach and protected the coaches and swimmers against the negative responses such as changing clubs, undermining coach policies and even in the extreme, firing a coach. This attitude was especially prevalent among younger and/or less experienced or less successful coaches. The question to discuss in the Scenario/Option Section of the report is whether a strong educational and information program can help mitigate this issue or if the restrictions are necessary.

#### Program Independence and Philosophies

As discussions about the issue developed in greater depth, one of the strengths of the USA Swimming Club and Age Group programs emerged. Many believe that one of the strengths of USA Swimming is the independence and variety of coaching philosophies and methods providing different paths to success and providing a wide range of resources, support, and services to meet the wide variety of goals and abilities of USA Swimming athlete members. Quite a few coaches suggested that restrictions on suit use may limit a coaches ability to do what they think is best for their club swimmers and take away that independence and variety in program and coaching options. This is exactly why many believe restrictions are needed to help keep coaches and parents within a best practice framework concerning use of tech suits. Others, however, feel that this takes away the opportunity and ability to approach coaching and development in different ways and with different paths to success. This is a philosophical question for the Age Group Development Committee and USA Swimming leadership to address that goes beyond just the technical logistics and methodology of any suits restrictions.

## **BE LIKE MICHAEL, OR KATIE, CALEB, & LILY**

Increasingly young swimmers are exposed to the heroes of the sport. They see them all over social media and in suit ads and are promoted more and more by USA Swimming and manufacturers. National team swimmers are also increasingly doing clinic tours such as the Fitter and Faster Tour, doing appearances as part of USA Swimming athlete partnership program or making appearances on behalf of suit manufacturers and other sponsors. As in many sports, young swimmers look up to these idols and hope to emulate them. They want to wear the same gear and at least appear to be in suits similar to the suits worn by their heroes.

Several parents and coaches mentioned the importance of the impact of our swimming heroes on the young swimmers' involvement and ongoing commitment, involvement, and development in the sport. As one coach described, "Wearing some type tech suit makes the swimmer feel like a true swimmer and a part of the same swimming world as their heroes." This is a stronger factor for the girls based on the different look of the kneeskin.

This is an example of how even entry level tech suits can be part of the engagement of young swimmers. It also illustrates how "hero" swimmers can be a central part of any educational program about development priorities and the appropriate role of tech suits in overall swimmer development.

As much as swimmers want to be like their heroes, they also want to be part of the team. Swimming is often viewed as an individual sport but we all know that the young swimmers love the team aspect of being with their friends having fun at meets, even if they step on the block alone. The traditional non-tech team suit along with the cap and apparel are a part of being on the team. Tech suits at the age group level do not lend themselves at all to a team look, making the swim cap the only real team branding of the swimmer in the water. Even coaches who do not favor restrictions feel it is important to have meets where the team suit is an important part of the meet experience for the age group swimmer.

## **EDUCATION AND COMMUNICATION**

If there is one thing everyone agrees on is that there is a significant need for greater education of parents and all swimmers about the function, impact, and role tech suits play in the performance of swimmers and the key features, suit options, and cost appropriate suits for different levels of swimming. This need exists for all levels of swimming and is recommended whether national suit use restrictions are put in place or not. In the case of restrictions, this information will be critical in explaining and justifying the restrictions and if restrictions are not put in place education will be a critical component of changing behavior and addressing the tech suit age group issues through recommendations and guidance.

### **Parent Education**

Part of our interviews with parents focused on what they know and did not know about tech suits, factors they look for when the purchase, where they get their information, and what they want to know. Many of the interviews included questions about tech suits directed to us, giving us greater insight on the information they would like. It is clear from interviews that parents of young swimmers even up to 13-16 year old swimmers only very rarely have any insight into the technology of tech suits and the variety of options and features. There is limited knowledge on pricing, sizing, and durability. Most important, there is really no insight or understanding on how a tech suit might or might not enhance the performance of their young swimmer. In most cases, decisions are driven by what other people or buying. Their most important source of information is from conversations with other parents, usually in the stands at a swim meet. The second most mentioned source of education and information is the internet, drawing on info on team dealer websites and sometimes manufacturer's websites and YouTube info. Even when a club team has a suit policy or suit guidelines there is little direct input or information from the coaching staff to the parent on what would be a suitable suit for a young swimmer or information or guidance on why the swimmer should or should not get a tech suit. Often, the communication with parents of young swimmers is with assistant age group coaches, often part-time coaches. During this interview process we were surprised at the limited involvement of the coaches in this process at the age group level. Any educational piece on tech suits would need to include references to the priorities that young swimmers and families should focus on, including skill development, training, and coaching.

The information available to the parents from other parents and even from manufacture or internet info is fragmented, inconsistent, and often sales driven and does not address the issues of the correct suit and even if a tech suit is needed. An organized educational/informational piece and campaign is a critical next step as part of USA Swimming's role supporting the knowledge base of swimming families in the sport and ultimately creating a better experience for USA Swimmer members. Manufacturers all recognize this need and would support this effort, hopefully to the extent of providing input and distribution. It is also important that key national team swimmers and manufacturer sponsored swimmers are part of the messaging about the use or non-use of tech suits and the training and development priorities are also stressed by these swimmers. While direct information from USA Swimming can influence parents, key messages from swimmer heroes can go a long way to help educate the young swimmer.

- Why a tech suit works
- What are the key features of a tech suit
- Does a tech suit help a young age group swimmer

- Do you need a tech suit?
- If so, how do we select the appropriate one
  - Guidelines for ages and levels of competition
  - Features and options
  - Cost factors
- How long does a tech suit last

### Coach Education

When new technology and the era of tech suits made significant advances in the late 1990s and early 2000's coaches became very engaged in learning about the suits, asking questions, and understanding the features and options. As tech suits have become widely used and the FINA rules have narrowed the technology options, the use and understanding of tech suits has been taken for granted. During this period we have found that younger coaches and even many experienced coaches do not understand the options and technology available and how the options and costs differ by feature and applicability to different ages and levels of competition. In an interview with John Leonard, Executive Director of the American Swimming Coaches Association (ASCA), he first mentioned how the younger coaches of today do not understand or know what they should know about tech suits and technology and its role with swimmers of different levels. This initially caught me by surprise, but follow up interviews with coaches confirmed John's comments. This indicates that it will be important that ASCA and coaching organizations also have a role in developing information for families, swimmers, and coaches.

### Education Next Steps

Regardless of the direction taken on age group tech suit restrictions it is important that USA Swimming take the lead with support and coordination of manufacturers, ASCA, and national team athlete spokespeople in developing educational materials and an informational campaign on tech suits and their appropriate role in overall swimmer development and involvement in the sport.

### Role of Coaches and Teams

USA Swimming Member Clubs and Coaches are one of the key strengths of USA Swimming and its programs. Clubs and coaches will be critical to the promotion and education of member swimmers regardless of the direction taken on tech suit use by age groupers. In interview with coaches, virtually all coaches stressed the need for greater education of swimmers and families. Yet, following up on this point, only 10% of coaches interviewed mentioned that they had some organized or formal information program for swimmers and families about the use of tech suits. This disconnect was very surprising since it has long been assumed that the coaching staff would be a key source of information distributed through the team. It is unlikely that this will change significantly without the proactive development of educational and informational materials by USA Swimming to make it easier for clubs and coaches to circulate this material to club membership.

USA Swimming's Club Recognition Program (CRP) provides member clubs with "a working blueprint of developing strong, stable, financially sound and athletically productive organizations." Parent, coach, and athlete development and education are key elements of the criteria and guidelines for all the levels of CRP. As discussed throughout this report, it is important for clubs and coaches to address tech suit issues as part of the overall development

priorities. The CRP can be another platform to promote tech suit education and recognizing it as part of the best practices of good clubs.

ASCA and local/regional coaching associations can help with this effort, as can the coaching clinics, services, and club management workshops and consulting services offered by USA Swimming through Club Development.

## **REVIEW OF CURRENT AND PENDING LSC RULES, REGULATIONS, AND ENFORCEMENT**

The LSCs that have established use restrictions have developed several different approaches to the restrictions. Southern California Swimming has been a leader in this process and most LSCs discussing or developing restrictions have looked at Southern California's rules and adapted some of the elements for their own LSC use. The process in Southern California in developing these rules engaged suit manufacturers and worked hard to come up with a workable model.

Currently, USA Swimming recognizes the following LSCs that have put restrictions in place or have restrictions pending. This has been a moving target throughout this study and additional LSCs may have programs in the works, but these are the LSC programs we reviewed. Even the USA Swimming Headquarters does not have complete knowledge of all the LSC programs in discussion. We thank SwimSwam and Swimming World for their efforts in chronicling all of the tech suit restrictions to make this analysis possible.

### **Restrictions or guidelines in Place**

- Arkansas (delayed enactment pending potential action by USA Swimming)
- Iowa
- Maine
- New England
- New Jersey
- Oregon (established guidelines for 10 & Under swimmers, not actual restrictions)
- South Carolina
- Southern California

### **Pending Restrictions**

- Georgia
- Ohio
- Pacific

We have conversations with other LSCs that are actively discussing or waiting to take the lead from USA Swimming one way or another. All of these LSCs are focusing on the core issues as discussed earlier. Here are some of the key elements of different LSC rules:

### **Age and Level of Competition**

10 & Under is the age range that all LSCs agree on, with some applying restrictions to 11 & 12 swimmers.

#### **LSCs with restrictions on 10 & Unders**

- Iowa (all meets and time trials)
- New England (all meets and time trials)
- Ohio (not fully passed but pending in committee)

#### **LSCs with restrictions on 12 & Under**

- Arkansas (excludes use during the finals sessions of prelim/final meets)



- Georgia (in committee development and tentatively excludes use in LSC championship meets)
- Maine (full ban for 10 & unders with partial ban for 11 & 12s exempting use for JOs, Bowdoin Open, YMCA States, and Maine Championships)

#### LSCs with broader restrictions

- Southern California Swimming (SCS) (most detailed of all restrictions)
  - First to be put in place (January 1, 2017)
  - Swimmers 10 years old and younger may not compete in tech suits in any SCS sanctioned meets
  - Age groups 11 & up
    - Tech suits are not permitted at the following meets
      - Age Group BRW meets including Open events
      - Age Group Invitationals including Open events
      - Dual/Tri and/or intrasquad meets including Open vents
    - Tech Suits are permitted at the Winter age Group Invitationals, June Age Group Invitationals, and Junior Olympic meets except for 5-10 year old events

#### Definition of Tech Suits

As indicated in the report section on Suit Technology, the main elements of tech suits are bonded seams, woven fabric, and water repellent treatments. LSCs have adopted some slightly different language in defining tech suits, but the truly operative element of the restrictions is a list of banned suits and in the case of one LSC a list of approved suits when there is confusion with the technical features. The key language first developed by Southern California Swimming and now appearing in the rule language of SCS, Maine, Iowa, and New England is the following:

“No suites with bonded seams, kinetic tape, meshed seams”

NOTE: Kinetic tape is part of FINA restrictions also, but it is a fine line between kinetic tape and the bonding tape used on the seams.

There is no mention of woven fabric, but this feature is a distinguishing feature and cost driver of tech suits.

Each LSC with restrictions except New Jersey have developed a list of restricted suits. Southern California is the only LSC that has published a list of approved suits addressing the gray areas of tech suits. The Southern California policy also includes language as follows: “If a suit has these items, it is not allowed, even if not on the Restricted List.” This caveat does not appear in some other LSCs but is being treated in that fashion. This clause deals with the reality of the constantly changing number of suits on the market and the wide range of dates when the suits become available, creating an ongoing challenge to keep any restricted list current.

#### Enforcement

Again, Southern California has enforcement language that has been copied by other LSCs. This includes the following:

- Coaches, swimmers, and parents will be responsible for knowledge of the policy, not Meet Officials

- The Meet Referees will include the Restricted List in the Coaches meeting, give out copies, and DQ violators

Language in other LSCs is not as detailed. In Maine the policy states: “Meet officials, coaches, swimmers and parents are responsible for knowledge of this policy. Maine also uses the same language as SCS with respect to the role of the Meet Referee.

New Jersey is the only LSC that has more specific Rule Enforcement language about what occurs when a swimmer gets to the block in a restricted suit:

“Swimmers who are wearing restricted suits will not be permitted to compete in said suit. However, they are able to change into an acceptable suit to swim. No extra time before their race will be given to change suits. If there is any question about a suit, it should be addressed to the meet referee prior to the start of the session.”

If a national policy on suit restrictions is enacted, the FINA approval sticker would be the easiest and most effective way to enforce with the cooperation of manufacturers in eliminating the sticker on suits that are not truly tech suits as defined by a more detailed definition of tech suits. This would require some work and minimal expenditure by the few manufacturers that may have a non-tech suit with the FINA approval sticker.

#### Concerns and Challenges with Enforcement

In virtually all of these LSC policies using a restricted list and the bonded and meshed seams and kinetic tape language the final onus of enforcement rests on the officials behind each block, usually timers to identify a suit. A meet referee is not physically able to look at each swimmer as closely as needed to differentiate suits, especially in a fast moving age group meet with fly-over starts and other rapid fire meet procedures. The enforcement ultimately relies on the coaches and parents to do adhere to the rules in advance with the hope that the officiating team may identify a restricted suit if it does appear on the block. This is a challenge that even the most experienced suit experts would find challenging at best.

The use of the FINA approval sticker by New Jersey at least provides an easily visible identifier (one official said make them bigger!). The issues involved in the use of the FINA sticker were discussed in the Technology Section of the report. It is important to note that there are many suits with list without bonded or meshed seams and kinetic tape but do have woven fabrics and are viewed as tech suits by the majority of the swimming coaching and manufacturing community.

Jay Thomas, Chair of the Rules and Regulations Committee also summed up the challenge with a disqualification of a swim that would be viewed as legal by current USA Swimming Rules. He stated in an email to the New Jersey General Chair:

“Paragraph 5 states that the penalty for competing in a Tech Suit is disqualification. USA Swimming rule 102.8.1C permits suits complying with the FINA swim suits specifications to be used on competition. So once a swimmer competes in the suit, it is a legal swim regarding swimwear. They may be disqualified for failing to comply with the LSC policy.”

Jay’s comments clearly indicate the confusion that can occur with LSC rules in conflict with USA Swimming rules.

Jay further recommended:

“amending .... language that clearly states that a swimmer who was permitted to compete in a restricted suit shall not be disqualified, but shall be notified that they are not permitted to compete further until they change into a suit which complies with the LSC policy.”

It is clear that any national suit policy would also require the rewriting of several related rules in the USA Swimming Rule Book.

Southern California was very careful to provide a long lead time to enactment of restrictions to allow for manufacturers to adapt, swimmers and families to plan suit purchases well in advance, and Meet Referees to become educated about the restricted and approved tech suits and hopefully how to spot them. SCS lead time from rules approval to enactment was almost a full year, but in retrospect, they stated that even this tight for the education of all stakeholders. Other LSCs had a much quicker lead-time. New Jersey had the shortest lead time with rule approval in October, 2017 and an implementation date of November 1, 2017. Clearly this is a challenge for families that may have purchased suits leading up to the 2017/18 short course season, although using the FINA logo as the differentiator did not require any extensive advance training of officials.

One additional comment came up in discussions on enforcement that raised concerns. One LSC stated that when there was a question or a coach challenged a suit used by a swimmer that a picture of the swimmer in the suit was one option requested to pursue evaluating the legality of the suit. In this age of Safe Sport, it is distressing that close up photos of young swimmers might be used as part of enforcing this ban.

## **SUIT MANUFACTURER IMPACT AND INPUT**

Suit manufacturers obviously have a vested interest in the evaluation and progress of potential tech suit restrictions. Our discussions with the manufacturers found a very cooperative group of manufacturers in dealing with this issue. Many of the larger manufacturers in the US market have brought new entry level lower cost suits to market that do not meet the limited definition of tech suits used by virtually all the LSCs but these do have FINA approval stickers. Sales of their existing entry level tech suits are increasing over the last two to three years even prior to the discussion of restrictions.

Virtually all the manufacturers agree that the high end/highest cost tech suits are not appropriate for use by younger swimmers. Most do not market the highest end tech suits to this market and the size range offered in the high end suits usually does not fit the youngest swimmers. While the manufacturers are against restrictions on the whole, they could live with restrictions if they are included in the process of defining tech suits and have a reasonable lead-up time to adjust their inventories and design.

Several of the manufacturers actually identify the market potential of approved entry level suits combined with the likely demand created for higher level tech suits as soon as an athlete ages up out of the restricted age range. In some ways, this is a marketer's dream scenario in developing an approved progression of suits for the swimming consumer.

### **Profit**

One of the myths or misconceptions we discovered in discussions with coaches, parents, and officials is that the profit in the high end tech suits. The perception is that the suit manufacturers make a killing on these high cost suits and it is their interest to promote these to younger and younger swimmers. Actually, across the range of manufacturers, the profit margin on the higher end tech suits is significantly lower than the profit margin on the entry level suits and regular racing suits. Even at these much lower profit margins, the gross profit on the highest price suits, but the profit gap between these and the lower cost approved suits is much less than is generally perceived. Manufacturers have been looking for ways to grow this entry level suit business for several years. There is opportunity in any restrictions or use guidelines that can balance the loss of some high end suit sales.

### **Concerns of the Manufacturers**

**Lead time:** As mentioned earlier, the lead time before enactment of any restriction is critical to adequately planning for the transition for all stakeholders, but the optimum lead time for manufacturers is a little bit long. If national restrictions are put in place, the manufacturer would need to update size scales, plan ahead for disposal of any outmoded styles and inventories created by restrictions, and have adequate lead time to launch any new styles needed to address the market.

The lead time working back from enactment for this process could be as follows for most manufacturers:

New suit restrictions in place:	September 1	
New suits on shelf:	August 1	(1 month out)
Suits in production:	April 1	(5 months out)
Suits launched to dealers:	March	(6 months out)
Suits designed:	October to February	(11 months to 7 months out)
Rules passed:	September USAS	(1 year out)
Rules proposed:	May	(16 months out)

This lead time is based on the rules and regulations calendar for USA Swimming with a one year lead time following approval of any restrictions at the September USA Swimming Convention.

**Cost Factors:** Concerns were expressed about any cost increasing requirements that would defeat the purpose of keeping costs to swimmers lower. These may include:

- Any requirement to include any new approval or restriction logos
- Any requirement for different labeling or design features that require specific suits made for the US Market
  - Virtually all manufacturers in the market produce one line of tech suits for the world. Any requirement or need for separate USA and World inventory would be a significant added cost that would be passed on to consumers.
- Any shorter timeline that would create added cost or dead inventory
  - Inadequate lead time to sell off outmoded inventory
  - Need to expedite design or production to meet any new suit requirements needed for the start of the season

#### Areas of Support and Cooperation with Manufacturers

All of the manufacturers expressed interest in working with USA Swimming (and potentially coaching associations) in developing educational materials. This can include:

- Coordination of a common message on tech suit use
- Developing simple technical comparisons and information
- Use of sponsored athletes in generic messaging
- Assistance in distributing USA Swimming information through the manufacturer media platforms and their distribution network
- Other areas of support that may be needed
- NOTE: We did not include any discussions of financial support for the campaign

## **LEGAL CONSIDERATIONS**

Although legal challenges have arisen concerning current LSC age group tech suit restrictions, it is important to assess any risk or vulnerability to legal actions relevant to current or potential suit restrictions. While we certainly are not attorneys versed in the details of trade law we have had the opportunity to have informal discussions about any potential issues with several attorneys in business as well as the USA Swimming General Counsel. Although no legal challenges have yet arisen, here are some concerns of potential risks. We feel these risks are minimal, but all attorneys suggest being aware of worse case scenarios.

- LSC rules conflicting with USA Swimming Rules which may precipitate challenges at meets
- Variances in LSC rules that create concern when crossing LSC borders
- Inconsistent enforcement of tech suit restrictions, probably generated by the difficulty for local meet officials to stay on top of the restricted lists and manage the process on the deck in a fast moving age group meet
- Use of Cost or Price of suits in any tech suit definition criteria (Price collusion issue)
  - The NCAA has strongly advised all of their sport committees that when they are considering any equipment issues that the cost of the product or equipment must not be used in any criteria. (NOTE: This was relevant when the NCAA Swimming and Diving Committee was considering use of tech suits in NCAA competition back in the early 2000s.)
- Restraint of trade issues: It does not currently seem that restrictions on use in certain levels of competition would result in any restraint of trade issues, but with FINA allowing the unrestricted use of FINA approved suits there may be some pressure to pursue this. USA Swimming is not unfamiliar with these type cases in the past
- Gender equity and LGBTQ issues that may arise based on suit restrictions that may result in conflicting application of rules
- Any SafeSplash issues that may arise in the enforcement procedures of any suit restrictions requiring close inspection of suits on young swimmers

## **SCENARIOS AND OPTIONS ON RESTRICTIONS & POLICY**

There are several approaches that can be taken by USA Swimming to address the issue of tech suit use by young age group swimmers. We want to stress that these are not recommendations, only options to be considered.

### **OPTION #1: DO NOTHING!**

Allow LSCs to continue to independently develop suit restrictions that best meet their concerns and the needs of their members. From the start and throughout the entire length of this study, we heard from virtually everyone that some consistency and national policy must be put in place. The confusion in the market is already high as teams, particularly in the east with smaller LSC geographic areas, move from one LSC to another for competition.

This is the one option on which I will offer a strong recommendation. Doing nothing is not an option.

### **OPTION #2 No Restrictions on Suit Use and No Guidelines**

This option eliminates the ability of LSCs to create their own rules and leaves all suit use decisions in the hands of the coaches, swimmers, parents and clubs. It would allow Clubs to set their own policies if they so choose for their swimmers.

As mentioned in the discussion on Education and Communication, this option would appear to provide no value in addressing the issue and driving any change in the current tech suit culture and use.

### **OPTION #3 No Restrictions on Suit Use with Strong Guidelines & Recommendations**

This is one of the two most viable options. It would include a framework of guidelines and recommendations on suit use (tech and non-tech suits) for all ages and levels of swimming to help coaches, swimmers, and especially parents make informed educated decisions relying on strong recommendations. LSCs would not be able to enact their own suit use restrictions.

#### **Model of Guidelines and Recommendations**

- Establish levels of recommended tech suits by age and level of competition
  - Create matrix of these levels including the following criteria to help choose a suit:
    - Age
    - Years as a Year Round Swimmer
    - Level of Swimmer (A,B, C, etc.)
    - Commitment to training
    - Level of Meet or Championship
  - Level Suggestions:
    - Pre-Tech Suit use
    - Level One: Who and when would entry level tech suits be used
    - Level Two: Next step up for mid-range tech suits
    - Level Three: High end elite tech suits
- Cooperation of suit and swim industry

- Manufacturers and team dealers can identify their suits in marketing and sales materials by level and indicate who should be using this suit
- Widespread distribution through all available channels, including USA Swimming, manufacturers, coaches organizations, clinics, etc.
- Support from coaches associations and manufacturers in developing the levels with input from professional coaches and all available and relevant resources
- Messaging from national team and sponsored elite swimmers
- Development of a related educational piece on technical suit features and benefits not driven by a brand marketing campaign and focused on parents and swimmers
- Development of a related swimmer development educational piece to provide the link between tech suits and important skill and training development
- Use and adherence to these guidelines and recommendations can enter into the USA Swimming Club Recognition Program as part of best practice team management and policies

#### Pros of Option #3

- Eliminates the challenges of suit definition and enforcement
- Allows coaches and clubs to continue to manage their swimmers as they feel is in the best interest in the swimmers
- Provides a much more detailed recommendation matrix that a parent can use to sort through the vast number of tech suits available by identifying the level they need for their swimmer and increasing the likelihood of getting the right suit at the lowest price
  - NOTE: Parents in interviews all asked for some guidelines and would love to have such recommendations that they can use with their swimmers to manage expectations on tech suits.
- Can promote focus on training short of suit restrictions
- Allows for special circumstances and the flexibility to not restrict swimmers on different growth phases and timeline
- Simplifies officiating, does not overburden volunteer local LSC officials and does not micro-manage the meet process

#### Cons of Option #3

- Mere guidelines may solve a large percentage of the issue and effect change, but would not restrict the true outliers and overzealous parents who would continue doing whatever they want when it comes to putting their swimmer in a suit
- Guidelines and recommendations may not be strong enough to even change behavior
- Potential that a large number of coaches, particularly coaches reliant on the success of their younger swimmers to build their coaching resume

### **OPTION #4                      National Tech Suit Restrictions**

This option represents a national USA Swimming restriction of tech suit use similar to what some LSCs are currently doing and would eliminate the option of LSCs having their own and different guidelines.

Recommendations from many stakeholders all point to restrictions on 10 & Under swimmers across all meets. The extent of restrictions on 11 & 12 swimmers is more complicated. If 11 & 12 swimmers are include in restrictions, most coaches and parents expressed the interest in still



allowing use of tech suits by 11 & 12 Suits in LSC Championships and other designated championship meets and even in prelim/final age group meets. Suggested restrictions would not apply to any senior or open meets in which an 11 or 12 year old swimmer would compete.

Any rollout of national restrictions would still need strong educational information and even a slimmed down version of the guideline matrix of Option #3 to help promote the program and gain support for the process.

#### Tech Suit Definition

Tech suit definitions would need to be refined in more detail and clearer language than the ones currently used by LSCs. Every effort should be made to explore ways with the manufacturers to fine tune their use of the FINA approval sticker to enable the sticker to be used as an easily recognizable way to identify banned suits.

#### Pros of Option #4

- Takes the decisions on tech suits out of the club and coaches hands
- Almost complete management of overzealous parents and coaches
- Creates the most level playing field as far as suit use is concerned
- Reduces cost of participation for young swimmers
- May help focus swimmers and parents on key development priorities

#### Cons of Option #4

- Takes the decisions on tech suits out of the club and coaches hands eliminating the professional coaches ability to use their judgment in managing the development of young swimmers
- Creates added officiating load for local LSC officials
- May create some legal issues
- Further micro-manages the sport
- May eliminate some motivational value for young swimmers
- May not have the hoped for impact on increasing swimmers and parents focus on key development priorities
- May create even more pressure on swimmers and parents to purchase a higher cost higher level tech suits when the age up or advance out of the restricted categories

#### **OTHER OPTIONS**

Within Option #3 there may be some room for some LSC flexibility with certain parameters. Some coaches have suggested that if restrictions are eliminated they would still like the option to host a no tech suit meet as a special invitational, probably early season. This is an interesting option as long as it is restricted and could not be used to apply to all non-championship meets.

## **UNINTENDED CONSEQUENCES**

It is difficult to discuss unintended consequences in advance, since if we were able to identify them in advance we can anticipate them and they are no longer unintended consequences.

One potential scenario does come to mind. One comment I have heard in interviews is that we need to do all we can to make success not about the suits. This makes good sense, but in restricting suits, does this focus even more attention on the suits by designating and reinforcing them as a competitive advantage. By trying to make success not about the suits, are we actually making it more about the suits? Do restrictions then create the added scenario that swimmers and parents will immediately clamor for the next level of suits when they age up or move up to certain championship levels creating much more pressure and swimmers and parents to purchase higher priced suits?

Clearly these are items that should be discussed.

## **CONCLUSIONS & QUESTIONS**

Based on our research, we find that the tech suit cost issue is an important issue, but not one that is driving people out of the sport or as significant an issue as initially assumed. The major concern of tech suit use is the impact on the development of young swimmers, potentially drawing focus, attention and resources away from the development priorities swimmers, coaches, and parents should be focusing on.

As the Age Group Development Committee explores options, several key questions will be critical to this discussion and decision making process:

- Can strong industry wide guidelines and recommendations significantly influence the current culture of tech suit use to change current behavior and solve the vast majority of issues or are actual restrictions required to make the change?
  - This was at the crux of the debate with coaches with mixed opinions on this question
- Are the benefits that come with establishment of national restrictions worth the reduction of the freedom of coaches and clubs to develop guidelines that support their overall development model for young swimmers and take into account the specific needs of individual swimmers?
- Can restrictions be enforced fairly and consistently across the country without overly burdening our local volunteer officials at a time when finding officials is often a challenge locally?
- Is it in USA Swimming best interest to move to this level of what some perceive as micro-management and national requirements?

While there are many other questions and details, these seem to be the most critical questions and philosophies that need to be addressed by the Age Group Development Committee.



## **USA SWIMMING TECH SUIT STUDY**

### **Questions and Discussion Topics for Coaches**

Following are questions and discussion points for interviews with coaches. These interviews were conducted at multiple meets beginning late July 2017 and continuing through the last meet attended January 22. Efforts were made to interview and meet with a wide range of coaches; including head coaches and assistant coaches, senior and age group coaches, small and large teams, and wide geographic diversity.

#### **Questions on Coaches position and opinions**

- In your opinion, what features defines a tech suit?
- What do you think about the use of Tech Suits by young swimmers?
  - Appropriate age levels
  - Appropriate meet levels
  - When do you suggest swimmers start using tech suits?
  - Do you suggest different levels of tech suits for different swimmers, ranging from entry level to the highest cost elite tech suits?
  - Are restrictions necessary or appropriate?
    - If so, what levels and criteria would you apply?
    - How would you suggest enforcing the rule?
    - If your LSC has restrictions, how has the process worked to date?
  - Are there other ways to change the current behavior?
  - How would you address the issue if you had your choice?
- Cost of Tech Suits
  - What type and level of tech suits do your swimmers purchase at different ages and levels?
  - How big a concern is the cost of the tech suits to your parents and to the overall cost of participation on your team?
  - Has the cost of tech suits driven any swimmers out of the sport?
- Do the tech suits detract from young swimmers and parents focus on training and skill development

#### **Team Questions**

- Does your team have a suit policy
  - Guidelines
  - Requirements
- Do you or your team present education and circulate information to parents and swimmers on tech suits?

## Attachment #1

- How active are you in providing guidance to swimmers and parents on tech suit guidance and decisions?
- Do swimmers switch from team to team in your area depending on team guidelines on the use of tech suits

## LSC

- Is your LSC considering tech suit restrictions



## **USA SWIMMING TECH SUIT STUDY Questions and Discussion Topics for Parents**

Following are questions and discussion points for interviews with parents of USA Swimming age group swimmers. Interviews have been conducted at many meets and other opportunities and have focused on parents of swimmers up to 13-16 years old to discuss the process they went through in purchasing tech suits for their swimmers and of parents of 12 and under swimmers discussing the process they are currently going through or likely to undertake in the near future.

Questions are not relevant to all depending on the level of the swimmer and where they are in the development process.

1. Info on your swimmers
  - a. Gender
  - b. Age
  - c. Year Round Swimmer?
  - d. How many years as a Year Round Swimmer?
  - e. Rough estimate of level of competition (A, B, C times or top championship level)
2. Question about suits they have
  - a. Does your swimmer have a tech suit now?
  - b. What meets does he/she wear them in?
  - c. When did you get her/him their first tech suit?
    - i. Purchase new
      1. Any idea of what price you paid?
      2. Discounted previous discontinued suit on sale
      3. Special team sponsorship program or LSC zone team discount
    - ii. Bought used
    - iii. Hand me down from older sibling or other swimmer
3. If he/she does not have a tech suit now, are you considering or will you consider purchasing one in the future?
  - a. Qualifying for a certain level meet?
  - b. Reaching a certain age?
  - c. Incentive or reward for progress?
  - d. Other?
4. Team Policy or guidelines on suits
  - a. Does your team have guidelines or policies about the use of tech suits?
  - b. If so, what are the policies or guidelines?
5. Information on Tech Suits: How do you get info?
  - a. Coach or Team policy or education/information
  - b. Info from other parents

Attachment #2

- c. Internet
  - d. Team Dealer
- 6. Knowledge of Tech Suits
  - a. What features did/do you look for in a suit for your daughter/son?
  - b. If you have not purchased a suit, what do you think you would need to pay for the appropriate suit for her/him?
  - c. How long do you anticipate the suit lasting?
- 7. What questions do you have about Tech Suits

Any other topics, questions, or insights?



**USA SWIMMING STUDY**  
**Technical Suit Use by Age Group Swimmers**  
**Questions and Discussion Topics for Suit Manufacturers**  
**August 28, 2017**

Input from elite technical suit manufacturers, suit specifications and features, cost, and market sales and use information are very important elements of the study on technical suit use by age group swimmers that ISG is conducting for USA Swimming. We are attempting to obtain initial input as well as product and market data from manufacturers over the next three to four weeks and hope to meet directly with manufacturers at ASCA on the issues concerning any potential technical suit use restrictions for young age group swimmers. While input, suggestions, and recommendations from manufacturers may be specifically referenced in the study, specific sales or market information by manufacturer will not be included in the study report or any public presentations. Sales and market data will be used to establish overall market data for purposes of the study. Non-disclosure agreements can be provided if you wish to protect any proprietary information.

**QUESTIONS AND DISCUSSION TOPICS**

We appreciate your input on the following questions and discussion points as part of our research. Please provide answers as possible and we can further discuss these topics at ASCA and in calls and meetings over the next four weeks.

1. Do you feel that restrictions are necessary?
  - a. Do you see young swimmers using tech suits that really are not designed or appropriate for their use?
  - b. What recommendations or education would you provide to young swimmers and their parents and coaches as to who should be using tech suits and what levels or ages they should be using tech suits?
  - c. Can the issue of appropriate use of tech suits by young swimmers be solved through suggested guidelines and education?
2. What has been your experience to date in working with LSCs who have instituted restrictions on use of technical suits by age group
  - a. Southern California Swimming
  - b. Other
  - c. How have these programs impacted your business in these markets?
  - d. What have been issues from your perspective in educating the coaches, swimmers, and parents and in rolling out and enforcing the restrictions?
  - e. What other LSCs or organizations have you been communicating with about restrictions?

3. Taking into account the current discussion about the need for restrictions, how would you address this issue of appropriate use of tech suits for different ages and levels of competition?
  - a. Any recommendations on restrictions?
  - b. Age levels that would apply?
  - c. Levels of competition?
  - d. Definition of technical suits that would be appropriate to restrict?
4. If broader restrictions are put in place:
  - a. How would these impact your business?
    - i. Can restrictions on sales at a young age actually help drive more sales of tech suits when the age grouper ages into competition allowing tech suits?
  - b. How can you and other manufacturers help make this process work best?
5. Many coaches, swimming leaders, and officials stress the importance of education; for coaches, athletes, parents, and officials. How can manufacturers further assist in this education process?
  - a. Role of sponsored athletes?
  - b. Role of sponsored teams and coaches?
  - c. Communication tools and social media available through manufacturers?
  - d. Other?
6. If tech suit restrictions are determined to be important and appropriate, what level of swimming organizations should be implementing these restrictions?
  - a. At the Club/Team level
  - b. Local Swim Committees (LSCs)
  - c. Zone level
  - d. USA Swimming national guidelines
7. Do you work with USA Swimming clubs (sponsored or otherwise) that have their own tech suit guidelines and restrictions in place?
  - a. If so, can you give us the name of these teams for us to get their guidelines and programs
  - b. Do you know the guidelines these teams have in place?
8. If tech suit restrictions are put in place for young swimmers, what would you do to prepare for this change in the market?
  - a. Further develop and market legal “entry level tech suits”
  - b. What advance preparation and timeline would you need to adjust to any restrictions?
  - c. What timeline would you recommend for implementation of any restrictions?
9. How would you recommend any tech suit restrictions be enforced?
10. What other information, input, and recommendations can you provide to us and USA Swimming in helping review this over issue of tech suit use by age groupers?

## **INFORMATION REQUESTED**

### Technical Suit Information

This technical information and features will help provide a structure of features and help clarify the definition of technical suits related to this study and any potential restrictions.



- Fabric
  - Woven versus knit
  - Microfiber?
  - Fabric content
  - Relevant fabric features identified in product marketing and consumer information
- Construction
  - Seams
    - Bonded
    - Sewn
    - Combination of each on a suit?
  - Back styles available
- Sizing
  - Size Range
    - Do you have tech suits sizes that are particularly suited for and properly fit the youngest age group swimmers, specifically 10 and under and 11-12?
    - If so, what styles do you have the smallest sizes in?
  - Size determination chart
  - Any information relevant to sizing compared to other brand sizing?
- Market positioning
  - Are there specific tech suits you position as elite and/or entry level?
- Cost
  - MSRP for each suit
  - Do you have any data on what the average price end users are actually paying at the retail/team dealer level (or average discount)?
- What key technical features of specific suits do you market as the key differentiators of a “tech suit” and that you feel define the category of technical suits?
- Any marketing or informational pieces you use for your technical suits (include links to key information on line)

#### Market Information

This information will be used to help create an overall market analysis relevant to this study. This is information that be covered by any NDA and will not be reported by specific manufacturers or brands.

- Sales in units by specific suits
  - Male
  - Female
  - By size
  - By silhouette
  - Total Sales
  - If possible include summary of suits given away or sold at significant discounts as part of sponsorship or promotional programs (team, LSC zone team sponsorships, etc.)
- Any market data, research, or information you may have on your estimate of age breakdown of sales (knowing that the size information does not correlate well with age)

### Attachment #3

- To get better info on end users, we know team dealers are great resources and may have more information than the manufacturers on end user purchases. Can you recommend team dealers for us to talk to that may give us good information on end user sales?
  - Please include key contact individual and contact info for these dealers